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(71) Applicant *(for all designated States except US)*: **CLIPPER FISHING SYSTEMS - AUSTRALIA PTY LTD** [AU/AU]; 21 Ellinworth Parade, Box Hill, VIC 3128 (AU).

(72) Inventor; and

(75) Inventor/Applicant *(for US only)*: **REGAN, Kerry, John** [AU/AU]; 21 Ellinworth Parade, Box Hill, VIC 3128 (AU).

(74) Agent: **COLLISON & CO**; 117 King William Street, Adelaide, S.A. 5000 (AU).

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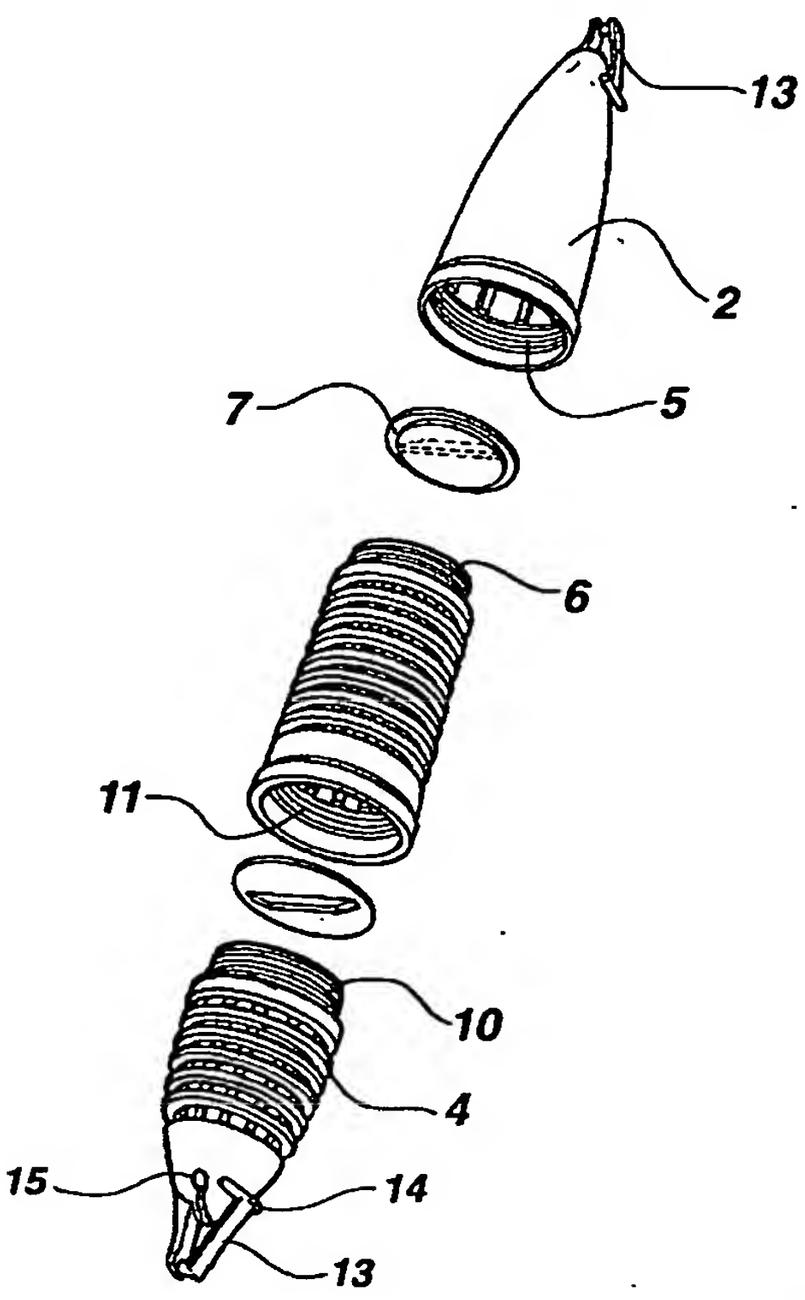
(54) Title: COMBINATION FISHING DEVICE



(57) Abstract: A combination fishing device (1) of three components (2, 3 & 4) which can be interchangeably connected (5, 6, 10, 11), these being a float unit (2), a berley cage (3) and a weight cage (4). The float unit (2) can be sealed with a seal (7) so as to hold air and can be located in one configuration at an upper end of the device with the weight cage (4) lowermost, and with a berley cage centremost.

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For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

COMBINATION FISHING DEVICE

TECHNICAL FIELD

This invention relates to a combination fishing device particularly one that can be useful for a number of applications.

The art and sport of fishing requires a fisherman to consider many different circumstances and to adjust his or her equipment accordingly.

My proposal is to provide compact devices, which enable a fisherman to use alternative techniques without undue difficulty.

An object of this invention then is to propose an apparatus that will be of additional assistance to a fisherman or, at the least, provide a useful alternative.

DISCLOSURE OF THE INVENTION

In one form of this invention there is proposed a float to be used for fishing, which includes as separable units a float unit, a berley cage and a weight cage where each of these have means to interlock one with another of the unit.

In preference the means to provide for an interlocking engagement include a thread at one portion of a respective unit and a thread on the other adapted to receive with the threaded engagement, the other unit.

In preference, the float unit has at one end a threaded portion, and the berley cage has a matching threaded end adapted to engage with threaded inter-engagement the float unit, and the weight cage has at one end a threaded part which is adapted to engage either the threaded part of the float unit or a further threaded part of the berley cage.

In preference, the float unit is a hollow member which has a membrane positioned across an otherwise open end and positioned so that the insertion of a male thread from either of the weight cage or the berley cage will, when tightened, engage and hold under sealing pressure the membrane with respect to a seat.

In preference, it is the berley cage that is formed as a cylindrical item having at each of opposite ends a thread and having at one of these, a male thread and at the opposite a female thread and there being adapted to be held at the female thread end a barrier member which is adapted to be held in a barrier position by an inserted female thread from the weight cage.

In this way, berley can be held within the cage but if the barrier member is in place, then this can keep the berley separate from entering a weight cage.

Both cages, in this case in preference, are formed from injection plastics material and in the form of providing an inner hollow body and a wall having a plurality of apertures therethrough.

In the case of the berley cage, the apertures are chosen to be of an appropriate size to allow for berley to be perceived in water and, to some extent, release berley in some occasions.

The weight cage is intended to receive one or more weight elements such as lead balls and the fisherman can decide thereby as to the degree of weight that should be used in any particular case.

By having these contained within a cage, however, water will be able to pass into the cage so that there will be no accidental flotation effect except, perhaps from the flotation characteristic of the plastic itself.

By having then what might be termed a three piece unit which can allow for interchanging of components to have these worked either together as a three piece unit or as a two piece unit with simply the float and the weight gauge being secured together, allows for a somewhat greater versatility for fishermen.

In preference, the float unit has at an end opposite that to which it will attach to either the berley cage or the weight cage, an openable loop.

In preference, the openable loop includes a tab which has an interlocking shape at its end, and there is a matching interlocking part on the body of the float unit so that the tab can be released or brought into an interlocking position.

The significant advantage of such an arrangement is that this then allows for a loop to be formed around a fishing line without having to tie a knot in the fishing line.

In preference, the interlocking arrangement includes a cylindrical member at the end of the tab being able to be inserted within a matching cylindrical shape with a slot within the body of the float.

In preference, there is an interlocking tab arrangement also located at the further end of the weight cage.

BRIEF DESCRIPTION OF THE DRAWINGS

For a better understanding of this invention it will now be described with respect to a preferred embodiment which shall be described with the assistance of drawings wherein:

FIG. 1 is a perspective view of the combination device with all three units connected together;

FIG. 2 is an exploded view of the respective units;

FIG. 3A is a cross-sectional view through the unit as shown in FIG. 1;

FIG. 3B is a exploded cross-sectional view through the unit as shown in FIG. 3A;

FIG. 4 illustrates the interlocking tab arrangement to provide a fastening member which will be able to be engaged around a fishing line to allow for the float to slide therealong and;

FIG. 5 is a perspective view of the unit with the berley cage removed.

BEST MODE FOR CARRYING OUT THE INVENTION

Referring to the drawings in detail, the combination fishing device 1 is made up of three components, a float unit 2, a berley unit 3 and a weight unit 4.

All of the articles are in this embodiment made by injection moulding of plastics materials appropriate to this application.

Accordingly, the float unit 1 is designed to be able to be sealed so as to hold air and to be located at an upper end so that with the weight unit 4 lowermost, then the orientation of the float in the water will be in this upright alignment.

The berley cage 3 has a cylindrical shape matching both a lower end of the float unit 2 and the upper end of the weight unit 4.

In each case as well, the means to interconnect these are provided by screw threads so that the lower end of the float unit 2 has a female thread 5 and an upper end 6 of the berley cage 3 has a male thread which then appropriately screws into the female thread 5.

In this embodiment, there is a member 7 acting as a membrane across a bottom area 8 of the float unit 2.

This member 7 is held in a sealing engagement against seat 9 so as to effect an effective watertight seal of air within the float unit 2.

The lowermost unit 4 also has a male thread shown at 10 and this can variously either interconnect with a lowermost thread 11 of the berley cage 3 or it can be used directly by being screwed into the female thread of the float unit 2.

What we have, therefore, is a berley cage that can either be added to or removed from a float weight combination and further, the float weight combination can be modified by the addition of selected amounts of weight or the weight cage can be used in addition to carry some berley.

The loop arrangement, shown at 12, includes a tab 13 which is integrally moulded with the rest of the body of the float unit 2 but the tab itself is able to be bent and at the end of this is a cylindrical member 14 which is positioned so that it can be inserted with a sliding action into slot 15.

Because of the lateral shape of the tab 12, any side deflection will be resisted by resilient characteristics of the plastic forming the tab but the shape and design is chosen so that some such side deflection is possible howbeit that there will be a returning force which, of course, will then keep the tab naturally in an interlocked position where the end cylindrical member is held in an interlocking position within the aperture within the body.

The same arrangement exists on the opposite end of the weight cage.

This then illustrates how the invention can be put into practice and from which can now be seen that this will provide a very convenient combination of parts for a fisherman allowing them several options in situations where the ability to make such changes quickly will be of great advantage.

The additional advantage of being able to provide a loop so that fishing line can be attached without the fishing line itself being bent or tied through a tight bend or otherwise overly heated, assists in maintaining integrity of fishing line and therefore an appropriate breaking strain for a selected fishing line.

CLAIMS

1 A float to be used for fishing, which includes as separable units a float unit, a berley cage and a weight cage where each of these have means to interlock one with another of the unit.

2 A float as in claim 1 further characterised in that the means to provide for an interlocking engagement include a thread at one portion of a respective unit and a thread on the other adapted to receive with the threaded engagement, the other unit.

3 A float as in either of claim 1 or 2 further characterised in that the float unit has at one end a threaded portion, and the berley cage has a matching threaded end adapted to engage with threaded inter-engagement the float unit, and the weight cage has at one end a threaded part which is adapted to engage either the threaded part of the float unit or a further threaded part of the berley cage.

4 A float as in any one of the preceding claims further characterised in that the float unit is a hollow member which has a membrane positioned across an otherwise open end and positioned so that the insertion of a male thread from either of the weight cage or the berley cage will, when tightened, engage and hold under sealing pressure the membrane with respect to a seat.

5 A float as in any one of the preceding claims further characterised in that the berley cage is formed as a cylindrical item having at each of opposite ends a thread and having at one of these, a male thread and at the opposite

end a female thread and there being adapted to be held at the female thread end a barrier member which is adapted to be held in a barrier position by an inserted female thread from the weight cage.

6 A float as in any one of the preceding claims further characterised in that both cages are formed by injection moulding from injection plastics material and such as to provide an inner hollow body defined by a wall having a plurality of apertures therethrough.

7 A float as in any one of the preceding claims further characterised in that the berley cage, the apertures are chosen to be of an appropriate size to allow for berley to be perceived in water and, to some extent, release berley on some occasions.

8 A float as in any one of the preceding claims further characterised in that the weight cage is adapted to receive one or more weights such as lead balls.

9 A float as in any one of the preceding claims further characterised in that the float unit has at an end opposite that to which it will attach to either the berley cage or the weight cage, an openable loop.

10 A float as in the immediately preceding claim further characterised in that the openable loop includes a tab which has an interlocking shape at its end, and there is a matching interlocking part on the body of the float unit so that the tab can be in a released position or an interlocking position.

11 A float as in the immediately preceding claim further characterised in

that the interlocking arrangement includes a cylindrical member at the end of the tab providing the interlocking shape and such that it is the this which is able to be inserted within a matching cylindrical shape with a slot within the body of the float.

12 A float as in any one of the preceding claims further charcterised in that there is an interlocking tab arrangement also located at the further end of the weight cage.

13 A combination fishing device comprised of three components, a float unit, a berley unit and a weight unit, the float unit being adapted to be able to be sealed so as to hold air and to be located at an upper end of the device so that with the weight unit lowermost, then the orientation of the float in the water will be in this upright alignment, the berley cage having a cylindrical shape with a diameter matching to be adapted to be joinable to both a lower end of the float unit and the upper end of the weight unit .

14 A combination fishing device as in the immediately preceding claim further characterised in that the means to interconnect these units are provided by screw threads so that the lower end of the float unit has a female thread and an upper end of the berley cage has a male thread which then appropriately screws into the female thread.

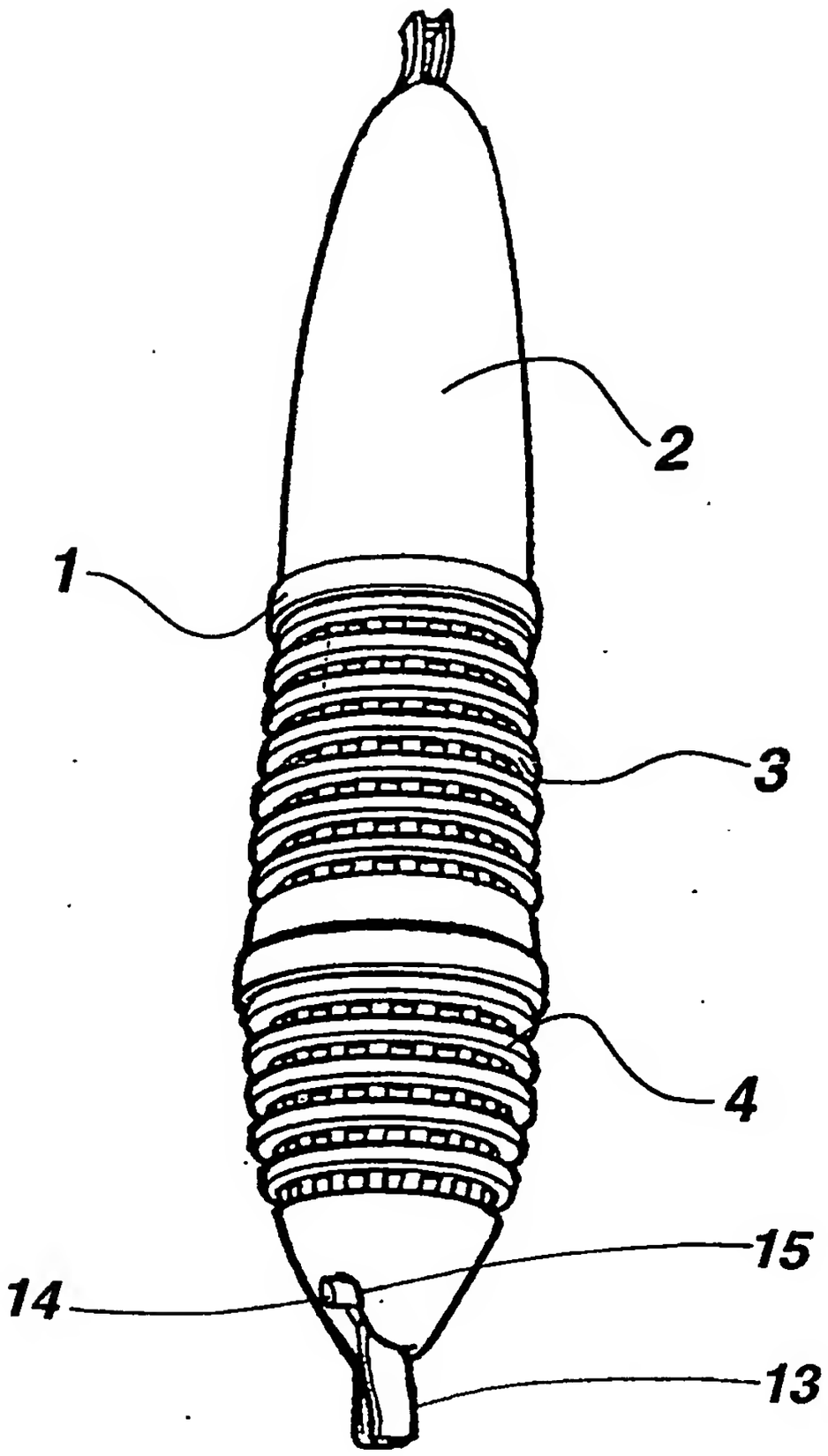

Fig 1

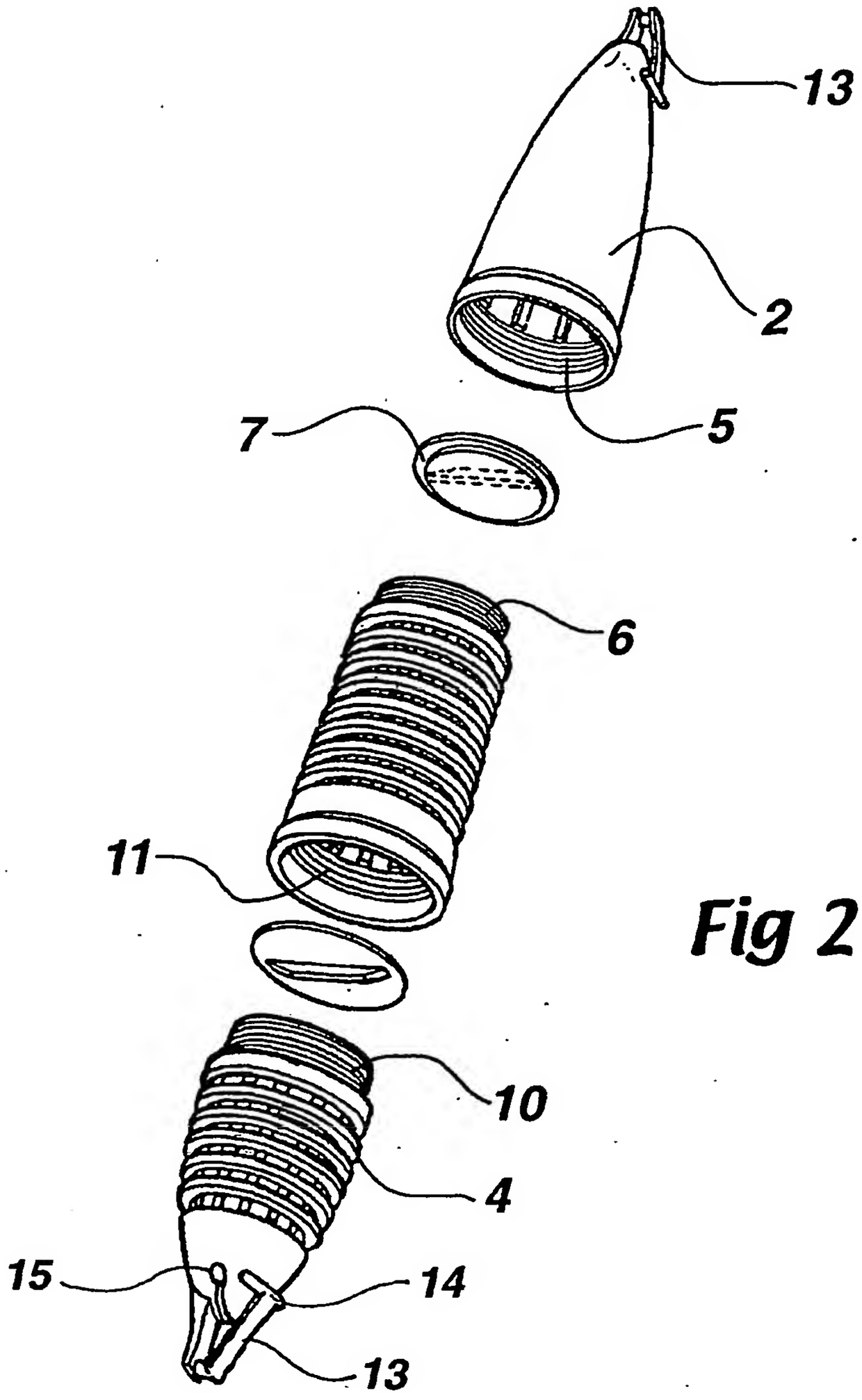

Fig 2

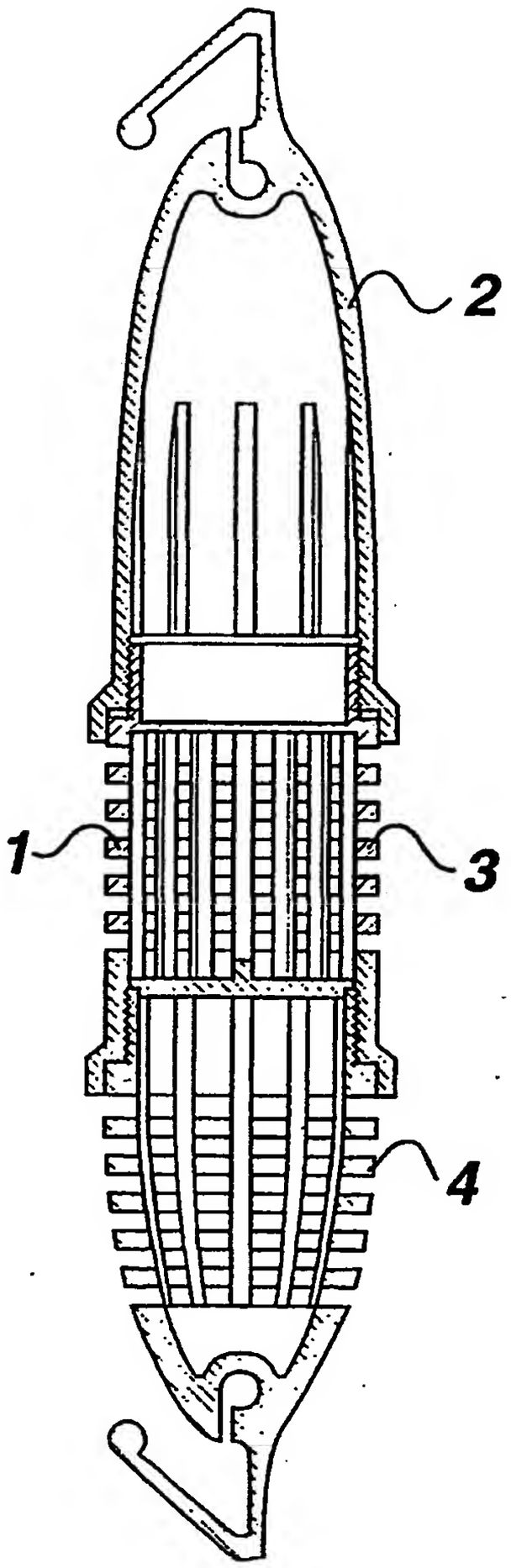

Fig 3a

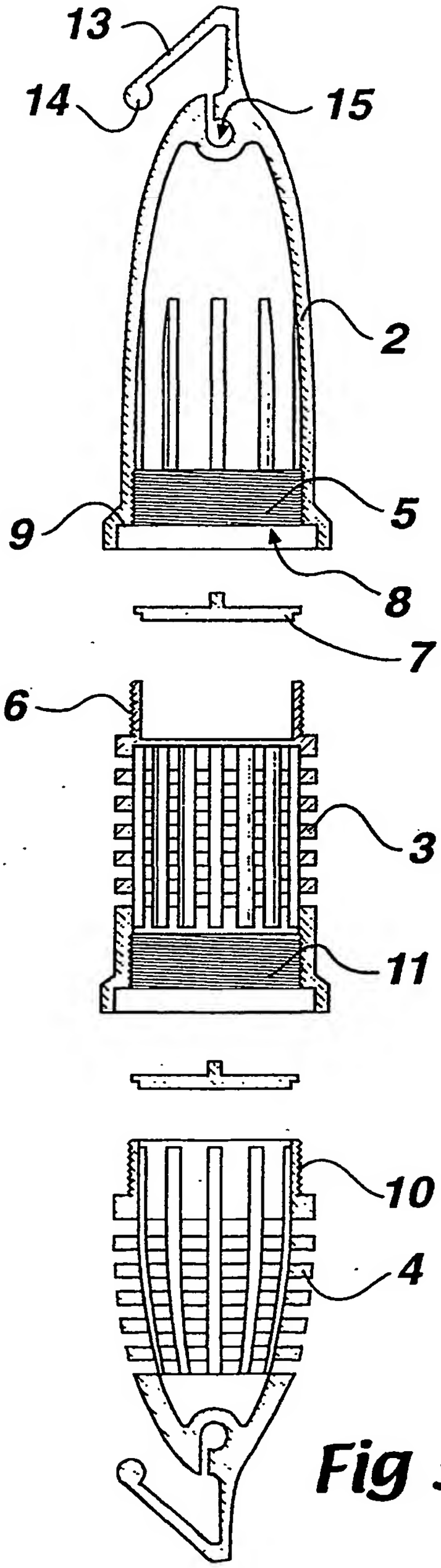

Fig 3b

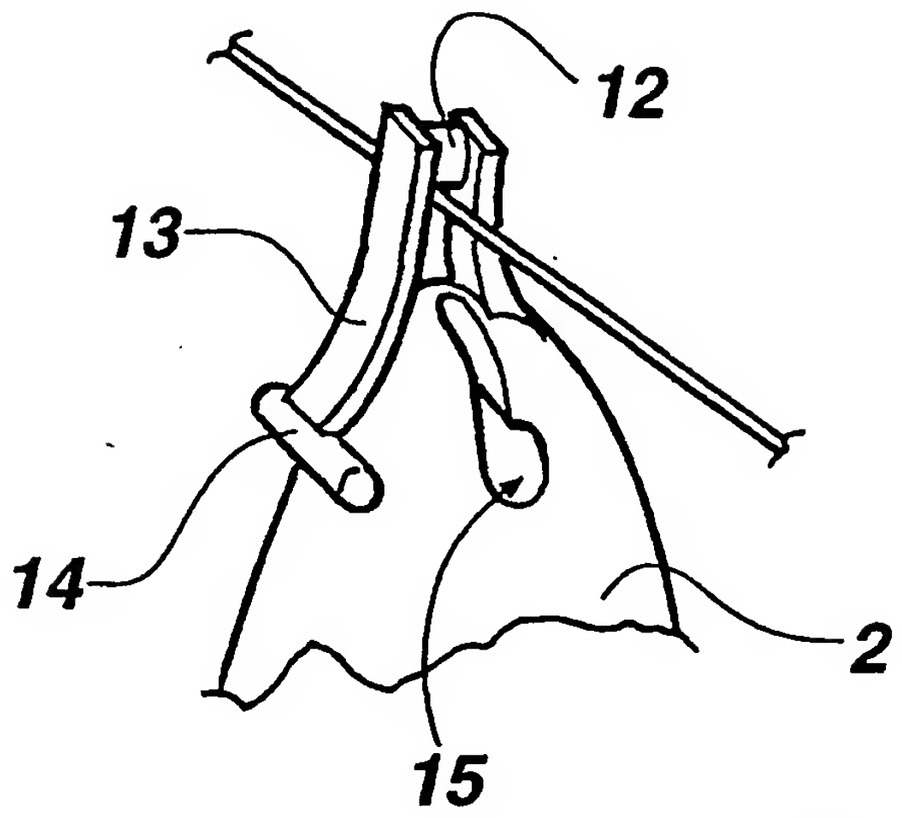

Fig 4

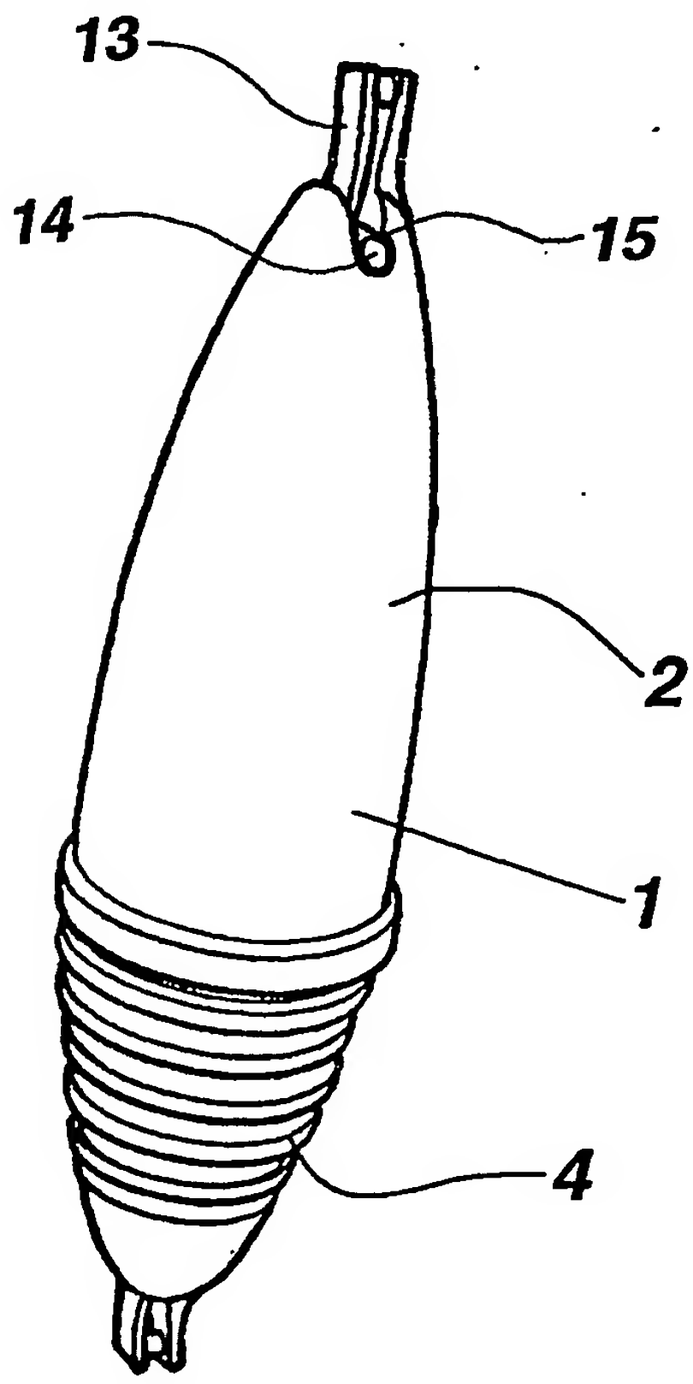

Fig 5

INTERNATIONAL SEARCH REPORT

International application No.
PCT/AU02/00203

A. CLASSIFICATION OF SUBJECT MATTER

Int. Cl. [7]: A01K 93/00, 95/00, 97/02

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

AU: IPC: A01K 93/00, 95/00, 97/00, 97/02

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

Derwent World Patent Index: IPC: A01K 93/-, 95/- & 97/- with keywords: float, berley, chum, ground bait.

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	Derwent Abstracts Accession No. 99-007895/01, Class P14, P42, NZ 286411 A (DAHYA) 26 August 1998 Abstract	
A	JP 09-238604 A (KUBO HIDEYA) 16 September 1997 Whole document	
A	JP 2000209995 A (KOSHI) 2 August 2000 Whole document	

☐ Further documents are listed in the continuation of Box C ☒ See patent family annex

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"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"&" document member of the same patent family

Date of the actual completion of the international search	Date of mailing of the international search report
19 March 2002	27 MAR 2002
Name and mailing address of the ISA/AU	Authorized officer
AUSTRALIAN PATENT OFFICE PO BOX 200, WODEN ACT 2606, AUSTRALIA E-mail address: pct@ipaustralia.gov.au Facsimile No. (02) 6285 3929	D.R. LUM Telephone No : (02) 6283 2544

INTERNATIONAL SEARCH REPORT
Information on patent family members

International application No.
PCT/AU02/00203

This Annex lists the known "A" publication level patent family members relating to the patent documents cited in the above-mentioned international search report. The Australian Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

Patent Document Cited in Search Report		Patent Family Member					
NZ	286411	NONE					
JP	09-238604	NONE					
JP	2000209995	NONE					
							END OF ANNEX